

Appl. No. 09/685,197  
Amendment dated March 26, 2005  
Reply to Office Action of December 29, 2004

### COMMENTS AND RESPONSE

In view of the comments below, Applicants respectfully requests that the Examiner reconsider the present application including rejected claims, as amended, and withdraw the claim rejections.

#### *Claim Objections*

The Examiner has objected to claims 27-31, 48-51, and 79-84 based on an informality.

By this response, Applicants have addressed this objection.

In particular, the Examiner has requested that the first use of the term AGC in a these claim groups be changed to --automatic gain control (AGC)--. Applicants have made the changes recommended by the Examiner.

In addition, although claims 14, 15, 66, and 67 are not included in this rejection, Applicants have made a similar correction to claims 14 and 66.

Therefore, based on these claim amendments, Applicants request that the Examiner withdraw the objection to claims 27-31, 48-51, and 79-84.

Applicant would like to point out that claims 14, 27, 48, 66, 79, and 84 were amended in response to an outstanding objection to the drawings and not due to a substantial reason related to patentability or any other reason that might give rise to estoppel. Therefore, the amendments to claims 14, 27, 48, 79, and 84 have not narrowed the scope of these claims within the meaning defined in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722 (2002).

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***Rejections 35 USC § 103***

The Examiner has rejected claims 1-3, 6, 8, 9, 17, 23, 32, 33, 35, 38, 45, 52-55, 59-61, 69, and 75 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Withington et al.(IEEE, 1999) ("Withington"), in view of United States Patent No. 5,642,377 to Chung et al. ("Chung").

Applicants respectfully traverse this rejection for all the reasons given in the response filed August 26, 2004. However, in an effort to expedite prosecution, Applicants have amended claims 8, 35, 38, 53, and 60 to incorporate the limitations of dependent claims that the Examiner has indicated are allowable, and have amended claims 1, 32, and 52 to include limitations the Examiner has indicated are not shown in the cited art.

With respect to claims 8, 35, 38, 53, and 60, Applicants have amended claim 8 to include the limitations of allowable claim 16; Applicants have amended claim 35 to include the limitations of allowable claim 36; Applicants have amended claim 38 to include the limitations of allowable claim 43; Applicants have amended claim 53 to include the limitations of allowable claim 56; and Applicants have amended claim 60 to include the limitations of allowable claim 68.

With respect to claims 1, 32, and 52, Applicants have amended claim 1 to recite "setting a number of samples of the incoming signal to a predetermined number so as to controllably establish a predetermined performance level with regard to when to control a transition between the acquisition mode and the tracking mode," Applicants have amended claim 32 to recite "a setting mechanism for setting a length of samples of the incoming UWB signal to a predetermined number so a transition between the acquire and track state machines occurs with a predetermined performance accuracy," and Applicants have amended claim 52 to recite "means

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for setting a length of samples of the incoming UWB signal to a predetermined number so a transition between modes occurs with a predetermined performance accuracy.”

The Examiner observes on page 11 of the Office Action that “the prior art fails to teach the step of setting a vector length of samples of the incoming UWB signal to a predetermined number so a transition between modes will occur while the UWB receiver is exhibiting a predetermined reception performance.” Applicants assert that the cited art likewise fails to teach the comparable elements newly recited in claims 1, 32, and 52.

Claims 2, 3, and 6 all ultimately depend from claim 1 and are allowable for at least the reasons given above for claim 1; claims 9, 17, and 23 all ultimately depend from claim 8 and are allowable for at least the reasons given above for claim 8; claim 33 depends from claim 32 and is allowable for at least the reasons given above for claim 32; claim 45 depends from claim 38 and is allowable for at least the reasons given above for claim 38; claims 54, 55, and 59 all ultimately depend from claim 53 and are allowable for at least the reasons given above for claim 53; claims 61, 69, and 75 all ultimately depend from claim 60 and are allowable for at least the reasons given above for claim 60.

Therefore, based on at least the reasons given above, Applicants respectfully request that the Examiner withdraw the rejection of claims 1-3, 6, 8, 9, 17, 23, 32, 33, 35, 38, 45, 52-55, 59-61, 69, and 75 under 35 U.S.C. § 103(a) as being allegedly anticipated by Chung.

#### *Allowable Subject Matter*

The Examiner indicated that claims 27-31, 48-51, and 79-84 would be allowable if rewritten to overcome the objections set forth in this Office Action.

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By this response, Applicants have amended the claims to overcome these rejections. This places claims 27-31, 48-51, and 79-84 in a condition that the Examiner has indicated would be allowable.

The Examiner has indicated that claims 4, 5, 7, 10-16, 18-22, 24-26, 34, 36, 37, 39-44, 46, 47, 56-58, 62-68, 70-74, and 76-78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten (1) in independent form including all the limitations of the base claim and any intervening claims, and (2) to overcome the objections set forth in the section of claim objections in this Office Action.

Claims 4, 5, and 7 all ultimately depend from claim 1. By this response Applicants have amended claim 1 to include a limitation that the Examiner has indicated is not disclosed in the cited art, as noted above. Therefore, claims 4, 5, and 7 should be dependent upon an allowable claim.

Claims 10-15, 18-22, and 24-26 all ultimately depend from claim 8. By this response Applicants have cancelled allowable claim 16 and amended claim 8 to include its limitations. Therefore pending claims 10-15, 18-22, and 24-26 are dependent upon a claim that the Examiner has indicated would be allowable.

Claim 34 depends from claim 32. By this response Applicants have amended claim 32 to include a limitation that the Examiner has indicated is not disclosed in the cited art, as noted above. Therefore, claim 34 should be dependent upon an allowable claim.

Claims 37 depends from claim 35. By this response Applicants have cancelled allowable claim 36 and amended claim 35 to include its limitations. Therefore pending claim 37 is dependent upon a claim that the Examiner has indicated would be allowable.

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Claims 39-42, 44, 46, and 47 all ultimately depend from claim 38. By this response Applicants have cancelled allowable claim 43 and amended claim 38 to include its limitations. Therefore pending claims 39-42, 44, 46, and 47 are dependent upon a claim that the Examiner has indicated would be allowable.

Claims 57 and 58 both ultimately depend from claim 53. By this response Applicants have cancelled allowable claim 56 and amended claim 53 to include its limitations. Therefore pending claims 57 and 58 are dependent upon a claim that the Examiner has indicated would be allowable.

Claims 62-67, 70-74, and 76-78 all ultimately depend from claim 60. By this response Applicants have cancelled allowable claim 68 and amended claim 60 to include its limitations. Therefore pending claims 62-67, 70-74, and 76-78 are dependent upon a claim that the Examiner has indicated would be allowable.

Therefore, for at least the reasons given above, Applicants assert that pending claims 4, 5, 7, 10-15, 18-22, 24-26, 34, 37, 39-42, 44, 46, 47, 57, 58, 62-67, 70-74, and 76-78 are dependent upon allowable base claims and should therefore be allowable without amendment.

#### *Claim Amendments*

By this response, Applicants have made minor amendments to claims 37 and 57 to correct their dependencies.

In particular, claim 37 has been amended to depend from claim 35 to reflect the fact that the limitations of claim 36 (from which claim 37 had originally depended from) were incorporated into claim 35. Similarly, claim 57 has been amended to depend from claim 53 to

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reflect the fact that the limitations of claim 56 (from which claim 57 had originally depended from) were incorporated into claim 53.

The above amendments made to claims 37 and 57 were made in order to maintain proper dependencies in these claims. They were not made because of a substantial reason related to patentability or any other reason that might give rise to estoppel, nor do they change the scope of claims 37 and 57 in any way. Therefore, the above amendments to claims 37 and 57 have not narrowed the scope of these claims within the meaning defined in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722 (2002).

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***Conclusion***

Accordingly, Applicants respectfully submit that the pending claims, as amended, clearly and patentably distinguish over the cited references of record and as such are deemed allowable. Such allowance is hereby earnestly and respectfully solicited at an early date. If the Examiner has any suggestions, comments, or questions, calls are welcome at the telephone number below.

Although it is not anticipated that any additional fees are due or payable, the Commissioner is hereby authorized to charge any fees that may be required to Deposit Account No. **50-1147**.

Respectfully Submitted,



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Date: March 26, 2005

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